## Alternator for Forklift

Forklift Alternators - A machine utilized so as to transform mechanical energy into electrical energy is actually called an alternator. It could perform this function in the form of an electrical current. An AC electric generator can in principal likewise be labeled an alternator. Nevertheless, the word is normally utilized to refer to a rotating, small device powered by internal combustion engines. Alternators which are placed in power stations and are driven by steam turbines are called turbo-alternators. Most of these machines utilize a rotating magnetic field but every now and then linear alternators are also utilized.

A current is produced inside the conductor when the magnetic field surrounding the conductor changes. Usually the rotor, a rotating magnet, spins within a set of stationary conductors wound in coils. The coils are located on an iron core referred to as the stator. When the field cuts across the conductors, an induced electromagnetic field also called EMF is generated as the mechanical input makes the rotor to turn. This rotating magnetic field generates an AC voltage in the stator windings. Normally, there are 3 sets of stator windings. These physically offset so that the rotating magnetic field generates 3 phase currents, displaced by one-third of a period with respect to each other.

In a "brushless" alternator, the rotor magnetic field can be caused by production of a permanent magnet or by a rotor winding energized with direct current through slip rings and brushes. Brushless AC generators are normally located in larger devices than those used in automotive applications. A rotor magnetic field can be produced by a stationary field winding with moving poles in the rotor. Automotive alternators usually use a rotor winding that allows control of the voltage produced by the alternator. This is done by changing the current in the rotor field winding. Permanent magnet devices avoid the loss because of the magnetizing current inside the rotor. These devices are limited in size because of the cost of the magnet material. As the permanent magnet field is constant, the terminal voltage varies directly with the generator speed.